

Gilbert's

LIVING WITH ART

SIXTH EDITION

Mark Getlein



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Principles of Design

When an artist sets about making any work, he or she is faced with infinite choices. How big or small? What kinds of lines and where should the lines go? What kinds of shapes? How much space between the shapes? How many colors and how much of each one? What amounts of light and dark values? Somehow, the elements discussed in Chapter 4—line, shape, mass, light, value, color, texture, space, and possibly time and motion—must be organized in such a way as to satisfy the artist's expressive intent. In two-dimensional art this organization is often called **composition**, but the more inclusive term, applicable to all kinds of art, is **design**. The task of making the decisions involved in designing a work of art would be paralyzing were it not for certain guidelines that, once understood, become almost instinctive. These guidelines are usually known as the *principles of design*.

All of us have some built-in sense of what looks right or wrong, what “works” or doesn’t. Some—including most artists—have a stronger sense of what “works” than others. If two families each decorate a living room, and one room is attractive, welcoming, and pulled together while the other seems drab and uninviting, we might say that the first family has better “taste.” Taste is a common term that, in this context, describes how some people make visual selections. What we really mean by “good taste,” oftentimes, is that some people have a better grasp of the principles of design and how to apply them in everyday situations.

The principles of design are a natural part of perception. Most of us are not conscious of them in everyday life, but artists usually are very aware of them, because they have trained themselves to be aware. These principles codify, or explain systematically, our sense of “rightness” and help to show why certain designs work better than others. For the artist they offer guidelines for making the most effective choices; for the observer an understanding of the principles of design gives greater insight into works of art.

The principles of design most often identified are unity and variety, balance, emphasis and focal point, proportion and scale, and rhythm. This chapter illustrates some thirty-two works of art that show these principles very clearly. But *any* work of art, regardless of its form or the culture in which it was made, could be discussed in terms of the principles of design, for they are integral to all art.

UNITY AND VARIETY

Unity is a sense of oneness, of things belonging together and making up a coherent whole. Variety is difference, which provides interest. We discuss them together because the two generally coexist in a work of art. A solid wall painted white has unity for sure, but it is not likely to hold your interest for long. Take that same blank wall and ask fifty people each to make a mark on it and you will get plenty of variety, but there probably will be no unity whatever. In fact, there will be so *much* variety that no one can form a meaningful visual impression. Unity and variety exist on a spectrum, with total blandness at one end, total disorder at the other. For most works of art the artist strives to find just the right point on that spectrum—the point at which there is sufficient visual unity enlivened by sufficient variety.

Ben Jones's *Black Face and Arm Unit* (5.1) illustrates how unity and variety work together. The work consists of multiple plaster casts of the artist's own head and arms, each painted in a distinctive pattern. Repeating forms and spaces unite the work. Slight variations in the forms—the unpredictable alternation of right and left arms, the various hand positions—provide some variety and impart a subtle sense of movement. Greater variety comes from the bold patterns, no two of which are alike. Set loose on the wall by themselves, these patterns would be merely chaotic. The body parts provide a structure that "tames" them, allowing us to perceive them as purposeful elements in a coherent work of art. *Black Face and Arm Unit* was created at a time when many African American artists were seeking to reclaim African art as part of their own heritage. Here, Ben Jones evokes the African traditions of masking and ritual body painting, as well as the widespread aesthetic preference for pattern.

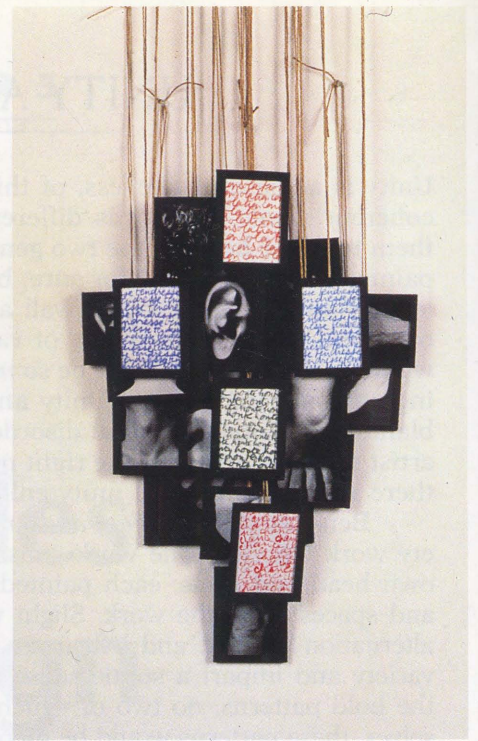
One way for an artist to achieve unity is by holding some of the visual elements constant and varying others. Henri Matisse used color to unify *The*

5.1 Ben Jones, *Black Face and Arm Unit*. 1971. Painted plaster, twelve life-size plaster casts. New Jersey State Museum, Trenton.





5.2 (left) Henri Matisse. *The Red Studio*. 1911. Oil on canvas, 5'11¼" × 7'2¼". The Museum of Modern Art, New York.



5.3 (right) Annette Messager. *Mes Voeux*. 1989. Framed photographs and handwritten texts, suspended with twine; 59 × 15¾". Courtesy Marian Goodman Gallery, Paris.

Red Studio (5.2). Walls and floor are saturated with a vivid scarlet, and some of the furniture is drawn as though transparent to let the red show through. By this method Matisse controls the variety of what might be any artist's home studio—paintings displayed and stacked against the wall, a clock and bureau, drawing and eating utensils. Matisse also relies on repeating shapes to hold the work together. A favorite device of his, these repetitions work like visual rhymes. For example, the S-curves of the plant tendrils rhyme with the woman drawn on the plate nearby and the openwork chair to the right. The circular form of the plate rhymes with the face of the clock. In fact, the longer we look, the more we realize that Matisse has used red to paint out almost everything *except* things that rhyme visually.

The two works we have just considered demonstrate *visual* unity—unity based in the elements of shape, line, color, and so on. Art can also be unified *conceptually*, that is, through a unity of ideas. Annette Messager relies largely on conceptual unity in her assemblage called *Mes Voeux* (French for “my wishes,” 5.3). If we think about what the photographs have in common, we realize that they all portray isolated body parts—knee, throat, mouth, ear, hand. The framed texts ask not only to be looked at but to be read. Two repeat the word *tenderness* over and over again; another, the word *shame*. Understanding the grouping as a kind of body itself places *consolation* at the head, *tenderness* at the arms, *shame* at the sex, and *luck* at the legs. Repeating shapes and restricted color give visual unity to the work, but it is conceptual unity that asks for our interpretation.

Conceptual unity predominates as well in the works of Joseph Cornell, such as *The Hotel Eden* (5.4). Cornell devoted most of his career to making boxlike structures that enclosed many dissimilar but related objects. Contained within the boxes, these objects build their own private worlds. Cornell collected things, odds and ends, wherever he went. His studio held crates of stuff filed according to a personal system. There were even crates labeled “flotsam” and “jetsam.” When making his box sculptures, Cornell would select and arrange these objects to create a conceptual unity that was meaningful to him, based on his dreams, nostalgia, and fantasies. By placing such

disparate objects and images together in a boxed enclosure with still smaller boxlike divisions within, Cornell imposed a visual unity that asks us to accept them as a coherent whole and to spend some time puzzling out their connections.

The works we have looked at so far strike a balance between unity and variety, and this is most often the artist's goal. Sometimes, however, an artist will aim at extreme unity or extreme variety. In works such as *Convergence*, for example, Jackson Pollock seemed to do away with the traditional concerns of design altogether (5.5). Tangles of flung and dripped paint weave a surface that might be characterized as nothing but unity—or perhaps nothing but variety. We have the sense that *Convergence* could extend forever in all directions, and that this is merely a section of it. In fact, this is what Pollock intended. His most important works are large, so large that a viewer standing before them feels engulfed in a vast web of energy—the traces of the painter's gestures and movements.

5.4 (below, top) Joseph Cornell. *The Hotel Eden*. 1945. Assemblage with music box, 15 $\frac{1}{8}$ × 15 $\frac{1}{8}$ × 4 $\frac{3}{4}$ ".

National Gallery of Canada, Ottawa.

5.5 (below) Jackson Pollock. *Convergence*. 1952. Oil on canvas, 7'11 $\frac{1}{2}$ " × 12'11".

Albright-Knox Art Gallery, Buffalo, N.Y.



BALANCE

Isamu Noguchi's delightful sculpture *Red Cube* (5.6) balances impossibly on one point. Noguchi wittily took the industrial materials and rectangular forms of mid-20th-century architecture and stood them on end, as though the buildings all around were pedestrians and his sculpture a dancer in their midst.

Noguchi's sculpture balances because its weight is distributed evenly around a central axis. The photograph of the sculpture is balanced as well, balanced *visually*. The simple red form set starkly against a dark background draws our attention strongly to the right. The white letters pull our eyes more gently to the left, as do the dark windows and the open hollow of the sculpture itself. Sculpture, hollow, letters, windows—all have a certain visual weight, and together they balance the photograph so that our gaze is never “stuck” in one place but moves freely around the image.

Visual weight refers to the apparent “heaviness” or “lightness” of the forms arranged in a composition, as gauged by how insistently they draw our eyes. When visual weight is equally distributed to either side of a felt or implied center of gravity, we feel that the composition is balanced.

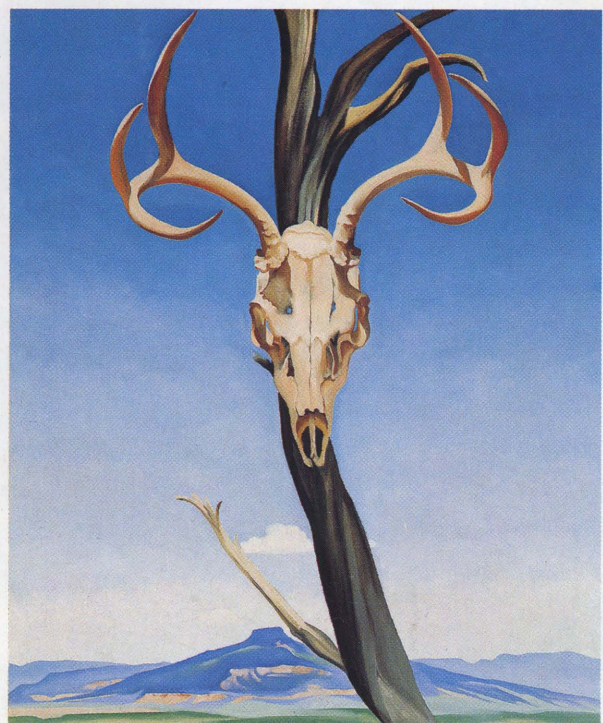
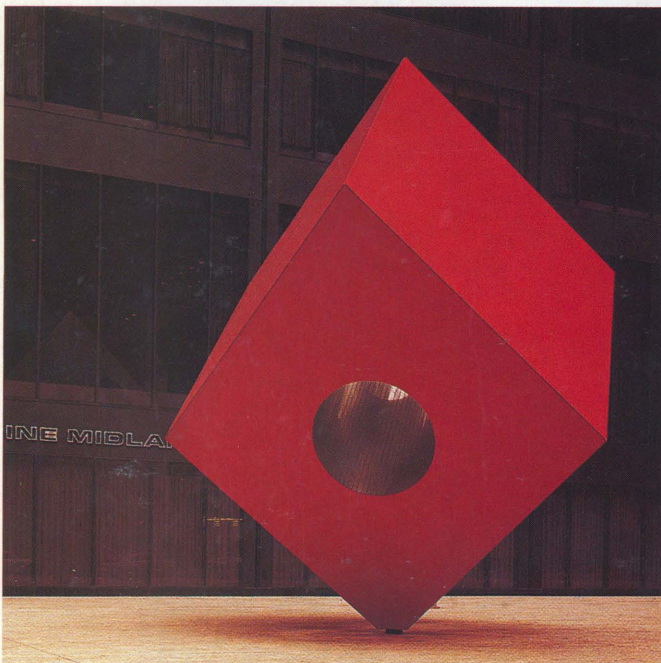
SYMMETRICAL BALANCE

With symmetrical balance, the implied center of gravity is the vertical axis, an imaginary line drawn down the center of the composition. Forms on either side of the axis correspond to one another in size, shape, and placement. Sometimes the symmetry is so perfect that the two sides of a composition are mirror images of one another. More often the correspondence is very close but not exact—a situation sometimes called relieved symmetry.

Georgia O’Keeffe used symmetrical balance in *Deer’s Skull with Pedernal* (5.7). The skull itself is perfectly symmetrical, and O’Keeffe sets it directly on the vertical axis. She then softens the symmetry with subtle shifts in balance. Toward the top of the image, the dead tree branches off to the right, its branches rhyming with the skull’s horns. To the bottom of the image, the trunk swerves off to the right as well, but a pale upward-thrusting branch, a lone cloud, and the distinctive silhouette of Pedernal mountain all add visual weight to the left.

5.6 (left) Isamu Noguchi. *Red Cube*. 1968. Steel painted red. Marine Midland Bank, New York. Photo courtesy The Isamu Noguchi Foundation, Inc.

5.7 (right) Georgia O’Keeffe. *Deer’s Skull with Pedernal*. 1936. Oil on canvas, 36 × 30". Courtesy Museum of Fine Arts, Boston.



GEORGIA O'KEEFFE

1887–1986



“AT LAST! A woman on paper!” According to legend, this was the reaction of the famed photographer and art dealer Alfred Stieglitz, in 1916, when he first saw the work of Georgia O’Keeffe. Whether accurate or not, the quote sums up Stieglitz’ view of O’Keeffe as the first great artist to bring to her work the true essence and experience of womanhood. Ultimately, much of the critical art world came to share Stieglitz’ opinion.

O’Keeffe was born on a farm in Wisconsin. She received a thorough, if conventional, art training at the School of the Art Institute of Chicago and the Art Students League in New York. During the early years she supported herself by teaching art in schools and colleges. By 1912 she was teaching in Amarillo, Texas—the beginning of a lifelong infatuation with the terrain of the Southwest.

In the winter of 1915–16 O’Keeffe sent a number of drawings to a friend in New York, asking her not to show the drawings to anyone. The friend violated this trust—and no doubt helped to set the path for O’Keeffe’s entire life and career. She took the drawings to Stieglitz.

By 1916 Stieglitz had gained considerable fame, not only as a photographer but, through his “291” Gallery, as an exhibitor of the most innovative

European and American painters. He was stunned by O’Keeffe’s work. Later that year he included her in a group show at “291,” and in 1917 he gave her a solo exhibition. This was the beginning of an extraordinary artistic and personal collaboration that would last until Stieglitz’ death in 1946.

O’Keeffe moved to New York. Stieglitz left his wife and lived with her. O’Keeffe painted; Stieglitz exhibited her work and made hundreds of photographs of her. The couple married in 1924, but their union was always an unconventional one. For more than a quarter-century their paths crossed and separated. Stieglitz was most at home in New York City and at his family’s summer place at Lake George. O’Keeffe was drawn increasingly to the stark landscapes of Texas and New Mexico. O’Keeffe treasured her husband’s presence but could paint at her best only in the Southwest. Stieglitz longed for her company but also wanted her paintings for his gallery.

O’Keeffe gained critical acclaim with her first exhibition, and it never entirely left her. Although major showings of her work were rare after Stieglitz died, no one forgot Georgia O’Keeffe. She was part of no “school” or style. Her work took an exceptionally personal path, as did her life. She dressed almost exclusively in black. She came and went as she pleased and accepted into her world only those people whom she found talented and interesting. More than most, O’Keeffe marched to her own drummer.

After 1949 O’Keeffe lived permanently in New Mexico, the area with which she is most closely associated. In 1972, when she was eighty-four years old, a potter in his twenties, Juan Hamilton, came into her life, and they became close companions. Rumors that they married are probably unfounded, but Hamilton remained with the increasingly feeble, almost-blind artist until her death.

Early on, in her thirties, O’Keeffe had expressed her impatience with other people’s standards for life and art: “I decided I was a very stupid fool not to at least paint as I wanted to and say what I wanted to when I painted as that seemed to be the only thing I could do that didn’t concern anybody but myself—that was nobody’s business but my own.”¹

Alfred Stieglitz. *Georgia O’Keeffe*. Gelatin silver print, 9 1/3 × 7 3/8".
The Metropolitan Museum of Art, New York.



5.8 (left) Edward Weston. *Washbowl*. 1926. Gelatin silver print, $9\frac{1}{2} \times 7\frac{1}{2}$ ".

Collection Center for Creative Photography, The University of Arizona, Tucson.



5.9 (right) Tori Busshi. *Shaka Triad*, in the Kondo (Golden Hall), Horyu-ji Temple, Ikaruga, Nara prefecture, Japan. 623. Gilt bronze, height 46".

The central placement of the symmetrical deer skull gives O'Keeffe's painting a forceful, formal presence, as though it were a coat of arms or a symbol on a banner. Edward Weston used this formal quality of symmetrical balance to give surprising dignity to an old washbowl (5.8). The play of light on the metal, the slightly irregular mosaics of the floor, and the details of the wall are all that relieve an otherwise perfectly symmetrical composition.

The much used and battered bowl gleams like a halo in the gentle light. Weston probably meant such religious associations to come to mind, for symmetrical composition is often used in religious images that emphasize a central, important being. An example is the *Shaka Triad* (5.9), the crowning masterpiece of the 7th-century Japanese sculptor Tori Busshi. Seated in the center in a pose of meditation is the Buddha, dressed in the familiar monk's robes. His gestures promise believers tranquility and a path to salvation. A waterfall of stylized draperies cascades over the platform on which he sits, while behind him rises a halo of stylized flames. Standing to either side of him are two bodhisattvas, slightly less elevated spiritual beings. The reassuring calm and radiant majesty of the statue are due in large measure to the formal order of symmetry.

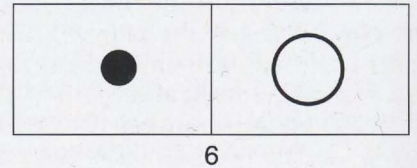
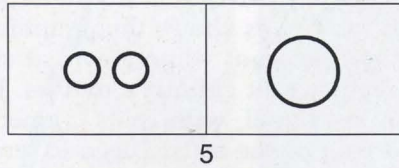
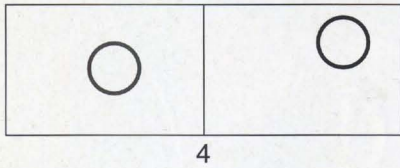
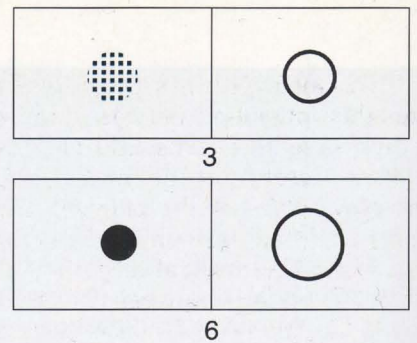
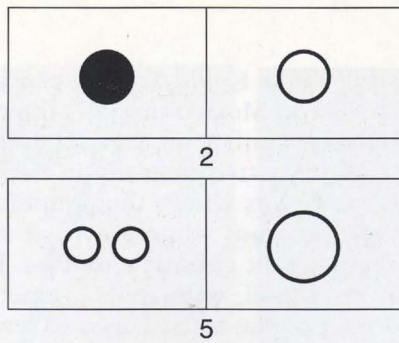
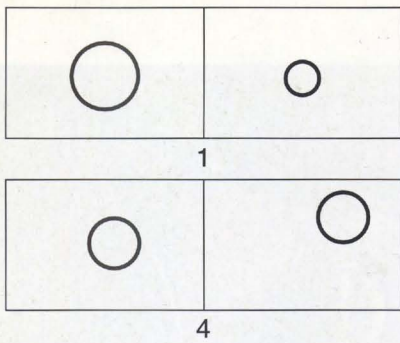
Paul Gauguin alluded to the association of symmetrical composition and religious imagery in his painting *Day of the Gods* (5.10). The prominent statue of a god stands slightly to the left of the vertical axis; directly below it a woman sits at the water's edge, flanked by two curled-up reclining bodies. Together these four figures form the composition's symmetrically balanced center of gravity. Gauguin balanced the rest of the composition, asymmetrically around them, with the four attendant women—the two in white to the left of the god and the two in red to the right—serving as a sort of transition between symmetry and asymmetry.

Symmetrical balance served the artist Frida Kahlo with exceptional force in *The Two Fridas* (5.11). Kahlo was born in Mexico in 1907, the child of a Hungarian/Jewish father and an Indian/Spanish mother. These two influences—the European and the Mexican—coexisted uneasily in her psyche and her art as long as she lived. *The Two Fridas* shows this graphically. At left is the “European Frida,” dressed in an elegant white gown; at right, the “Mexican Frida” wears a costume suited to that country’s natives. Both have their hearts exposed in gory anatomical detail, with veins connecting them. The Mexican Frida holds a tiny portrait of the artist Diego Rivera, to whom Kahlo was married. The European Frida snips the vein connected to the portrait, allowing blood to fall on her skirt. This picture’s symmetrical format gives a chilling interpretation to the double identity of its maker.



5.10 (above) Paul Gauguin. *Day of the Gods (Mahana No Atua)*. 1894. Oil on canvas, 26⁷/₈ × 36¹/₈". The Art Institute of Chicago.

5.11 (left) Frida Kahlo. *The Two Fridas*. 1939. Oil on canvas, 5'8¹/₂" square. Museo Nacional de Arte Moderno, Instituto Nacional de Bellas Artes, Mexico City.



ASYMMETRICAL BALANCE

When you stand with your feet flat on the floor and your arms at your sides, you are in symmetrical balance. But if you thrust an arm out in one direction and a leg out in the other, your balance is asymmetrical (*not* symmetrical). Similarly, an asymmetrical composition has two sides that do not match. If it seems to be balanced, that is because the visual weights in the two halves are very similar. What looks “heavy” and what looks “light”? Unfortunately, there are no mathematical formulas to follow. The drawing (5.12) illustrates some very general precepts about asymmetrical or informal balance:

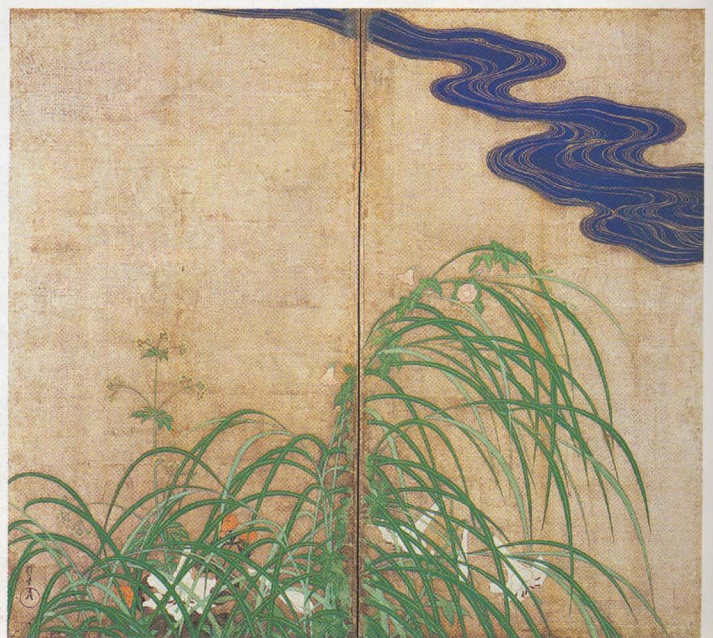
5.12 (above) Some principles of visual balance.

5.13 (left) Gustav Klimt. *Death and Life*. Before 1911, finished 1915. 5'10" × 6'6". Sammlung Leopold, Vienna.

5.14 (right) Sakai Hoitsu. *Summer Rain*, one of a pair of folding screens. Edo period, late 18th–early 19th century. Color on silver paper, 5'5³/₄" × 6'3³/₈". Tokyo National Museum.

- A large form is visually heavier than a smaller form.
- A dark-value form is visually heavier than a light form of the same size.
- A textured form is visually heavier than a smooth form of the same size.
- A form placed close to the central axis may be visually heavier than a similar form placed near the outer edge of the composition.
- Two or more small forms can balance a larger one.
- A smaller dark form can balance a larger light one.

These are only a few of the possibilities. Keeping them in mind, you may still wonder, but how does an artist actually go about balancing a composition? The answer is unsatisfactory but true: The composition is balanced when it looks balanced. An understanding of visual weights can help the artist achieve balance or see what is wrong when balance is off, but it is no exact science.



In Gustav Klimt's *Death and Life* (5.13), asymmetrical balance dramatizes the opposition between life, envisioned to the right as a billowing form of light-hued patterns and slumbering human figures, and death, a dark skeletal presence at the far left, robed in a chilling pattern of grave markers. The two halves of the painting are linked by the gaze that passes between death and the woman he has come to claim. Klimt has placed her face exactly on the vertical axis of the painting, which here serves as a sort of symbolic border between life and death. The only waking person in the dreaming cloud of life, she smiles awkwardly and gestures as if to say, "Me?" Death leers back, "Yes, you." The intensity of their gaze exerts a strong pull on our attention to the upper left, and Klimt balances this with an equal pull of visual weight to the right and down.

Like many European artists of his day, Klimt's ideas about asymmetrical balance were enriched by a study of Japanese art. Japanese artists had long cultivated dramatic asymmetrical compositions such as this folding screen by Sakai Hoitsu (5.14). Like Klimt's painting, Hoitsu's screen balances a simple dark form against a larger and more complex area of lighter values. Small pink flowers serve as visual "stepping-stones" between the stylized blue stream to the upper right and the interwoven arcs of the green grasses. White lilies attract our attention to the lower portion of the composition, where orange flowers draw our eyes to the left. There, a slender, standing, barely visible green plant provides the final counterweight. Isolated, symmetrical, and motionless, it subtly commands our attention.

It would be difficult to imagine a more daring composition than Nonomura Sotatsu's ink painting of *The Zen Priest Choka* (5.15). The forms are placed so far to the left as to be barely on the page! Sotatsu relies on an implied line of vision both to balance the composition and to reveal its meaning. We naturally raise our eyes to look at the form of the priest sitting in the tree—that's all there is to look at. We then follow the direction of his gaze down to . . . nothing. Meditation on emptiness is one of the exercises prescribed by Zen Buddhism, and this ingenious painting makes it clear. Our eyes repeatedly seek out the priest, who repeatedly sends us back to focus on nothingness.

For a masterful example of asymmetrical balance as it is more typically found in Western painting, we turn to *The Burning of the Houses of Parliament* by the English painter J. M. Turner (5.16). Turner was an eyewitness to the catastrophe, which he watched from a boat on the Thames River in



5.15 (above) Nonomura Sotatsu. *The Zen Priest Choka*. Edo Period, late 16th–early 17th century. Hanging scroll, ink on paper; 37¾ × 14¾". The Cleveland Museum of Art.



5.16 (left) Joseph Mallory Turner. *The Burning of the Houses of Parliament*. c. 1835. Oil on canvas, 36¼ × 48½". Philadelphia Museum of Art.

London. In his painting, he places the viewer on the opposite bank of the river. Our eyes are immediately drawn to the spectacular conflagration in the distance at the left. Turner balances this leftward attraction with the large white form of the bridge to the right, which brings us to the foreground of the painting where a crowd has gathered. A single white street lamp—the lightest value in the painting—draws our eyes to the left, and from there we circle back to the flames, this time allowing the directional lines of the rose and dark smoke to carry our eyes off into the night sky, where a few stars shine.

Turner's composition leads our eyes on a journey around the implied depth of the painting. Depth, or the lack of it, is a fascinating issue in Manet's *A Bar at the Folies-Bergère* (5.17). The barmaid seems to stand before a large interior that recedes far back into the distance. Actually she is wedged into a narrow space between the marble bar and a large mirror, which reflects all that she can see but cannot participate in. Her own reflection is displaced to the right, where we see that she is waiting on a man who must be standing where we are standing as we view the painting. Around the central, symmetrical form of the barmaid Manet scatters a dazzling display of visual weights and counterweights. The large dark form of the barmaid's reflection, the bowl of oranges next to the green bottle on the bar, the bottles to either side and their reflections in the mirror, the massive chandeliers and the moonlike white globes in the background, the woman in white who props her elbows on the balcony, even the green-clad feet of the trapeze artist visible at the upper left corner—all have a role to play. Place your finger over any element and you can see the life go out of that part of the painting and the overall balance become destabilized.

5.17 Edouard Manet. *A Bar at the Folies-Bergère*. 1881–82. Oil on canvas, 37 $\frac{3}{4}$ × 51 $\frac{1}{4}$ ".
Courtauld Institute Galleries, Home House Trustees, London.



Balance, then, encourages our active participation in looking. By using balance to lead our eyes around a work, artists structure our experience of it. As an important aspect of form, balance also helps communicate a mood or meaning. The promise of an unchanging, eternal paradise is embodied in the stable, symmetrical balance of Tori Busshi's *Shaka Triad* (see 5.9), just as the dramatic confrontation of life and death is embodied in the dynamic asymmetrical balance of Klimt's *Death and Life* (see 5.13).

EMPHASIS AND SUBORDINATION

Emphasis and subordination are complementary concepts. Emphasis means that our attention is drawn more to certain parts of a composition than to others. If the emphasis is on a relatively small, clearly defined area, we call this a focal point. Subordination means that certain areas of the composition are purposefully made less visually interesting, so that the areas of emphasis stand out.

There are many ways to create emphasis. In *The Banjo Lesson* (5.18), Henry Ossawa Tanner used size and placement to emphasize the figures of the old man and young boy. Tanner set the pair in the foreground, and he

5.18 Henry Ossawa Tanner. *The Banjo Lesson*. 1893. Oil on canvas, 49 × 35½".
Hampton University Museum,
Hampton, Virginia.





5.19 Paul Cézanne. *The Large Bathers*. 1898–1905. Oil on canvas, 6' 10" × 8' 3". Philadelphia Museum of Art.

posed them so that their visual weights combine to form a single mass, the largest form in the painting. Strongly contrasting values of dark skin against a pale background add further emphasis. Within this emphasized area, Tanner uses directional lines of sight to create a focal point on the circular body of the banjo and the boy's hand on it. Again contrast plays a role, for the light form of the banjo is set amid darker values, and the boy's hand contrasts dark against light. Tanner has subordinated the background so that it does not interfere, blurring the detail and working in a narrow range of light values. Imagine, for example, if one of the pictures depicted hanging on the far wall were painted in bright colors and minute detail. It would "jump out" of the painting and steal the focus away from what Tanner wants us to notice.

Cézanne uses the lines of tree trunks to narrow the focus of his monumental painting *The Large Bathers* (5.19), creating a central, triangular viewing area. He subordinates the upper corners of the painting by limiting visual interest there to brushwork in closely related middle values. The lighter values of the women's bodies draw our attention. Cézanne has massed them into two triangular groupings that echo the shape of the opening. The shared attention of the three women in the foreground links the two groups. Following their gazes and the lines of their arms, we would expect to find a



focal point, but Cézanne does not give it to us, for it would anchor the painting too firmly in the immediate foreground, and he wants our eyes to travel more freely. Instead, he creates a focal point on the farther shore, where two mysterious figures stand on the bank of the river. Several of the women in the right grouping direct our attention there.

Directional lines and light create the focal point in Francisco de Goya's *Executions of the Third of May, 1808* (5.20). The event Goya depicted was the invasion of Spain by Napoleon's armies and their savage execution of Spanish resisters. Our interest is centered on one heroic but doomed Spaniard, his arms raised in a pose of crucifixion. This tragic figure is bathed in light, while most of the rest of the painting remains in shadow. Moreover, the faceless figures of the soldiers point their rifles at him, and even the stance of their bodies focuses our attention on the victim. Goya's sympathies clearly lay with the killed, not the killers. He therefore emphasized the poignant sacrifice of one man, to deemphasize the mechanical slaughter by the others.

5.20 Francisco de Goya.
Executions of the Third of May, 1808. 1814–15. Oil on canvas,
8'9" × 13'4".
Museo del Prado, Madrid.

SCALE AND PROPORTION

Proportion and scale both have to do with size. **Scale** means size in relation to a standard or "normal" size. Normal size is the size we expect something to be. For example, a model airplane is smaller in scale than a real airplane; a 10-pound prize-winning tomato at the county fair is a tomato on a large

FRANCISCO DE GOYA

1746–1828



WRITERS ON GOYA have long been fascinated by the close friendship between him and the Duchess of Alba, the powerful aristocrat whom many considered the most beautiful woman of her time in Spain. It is a measure of this artist's complexity and uniqueness that the haughty duchess should form a special bond with one who emerged from quite humble origins, whose temperament was often morose and reclusive, and whose imagery could be shockingly gruesome.

Francisco José de Goya y Lucientes was born in a village in the bleak northeast section of Spain. While a young man Goya may have supported himself partially as a bullfighter, but this is one of the many unverifiable stories about his intriguing life. By the age of twenty he was in Madrid.

Goya's earliest commissions were for church murals and tapestry cartoons. In 1783 he was launched in one of the two artistic arenas for which he is best known—portraitist to the nobility. Within a few years he was active at the royal court, and in 1799 he was appointed court painter to Charles IV, King of Spain. Some of Goya's portraits, including two of the

Duchess of Alba, are exquisitely lovely; others have a darker side to them. According to some critics, Goya's pictures of the royal family, while appearing to flatter, were actually subtle revelations of the subjects' stupidity and corruption.

Goya's other major field of expression was prints, of which he was an unexcelled master. Two major series, each having about eighty images constitute the bulk of his work: *Los Caprichos*, in which the many follies of human nature are satirized; and *The Disasters of War*, an often brutally explicit catalogue of the cruelties prevalent in wartime.

Goya achieved both fame and financial success relatively early. While his career prospered, however, his personal life was repeatedly marked by tragedy. His marriage to Josefa Bayeu seems to have been more of a convenience than a passion. She bore him many children—perhaps as many as twenty—but only one survived to maturity. In 1792 the artist was struck by a severe illness that left him almost totally deaf. Another near-fatal illness in 1819 increased his isolation and pessimism; Goya bought a home outside Madrid, known as La Quinta del Sordo ("The House of the Deaf Man"), to which he retired and painted a series of works known as the "Black Paintings," for their dark tonality and aura of despair. After all, the artist's relationship with the Duchess of Alba, whatever it might have been (some maintain that they were lovers), seems to have been one of few bright periods in his life.

Goya's education was sketchy, and as an adult he read and wrote with some difficulty. An announcement for *Los Caprichos* probably was written with the help of a friend, but it captures Goya's attitude toward his art: "Painting, like poetry, selects in the universe whatever she deems most appropriate to her ends. She assembles in a single fantastic personage circumstances and features which nature distributes among many individuals. From this combination, ingeniously composed, results that happy imitation by virtue of which the artist earns the title of inventor and not of servile copyist."²

Francisco de Goya. *Self-Portrait in His Studio*.
Real Academia de Bellas Artes de San Fernando, Madrid.

scale. The artist Claes Oldenburg delights in the effects that a radical shift in scale can produce. In *Knife/Ship II* (5.21), he created a 40-foot-long pocketknife, outfitted with oars as though it were a royal barge. Motors turn the corkscrew and raise and lower the blades. Shown here in the lobby of the Guggenheim Museum in New York City, *Knife/Ship II* depicts a humble object on a truly heroic scale, and in doing so jars us loose from everyday habits of seeing. “Look at the things around you as though you had never seen them before,” the artist is in effect saying, “and notice how wonderful they are.”

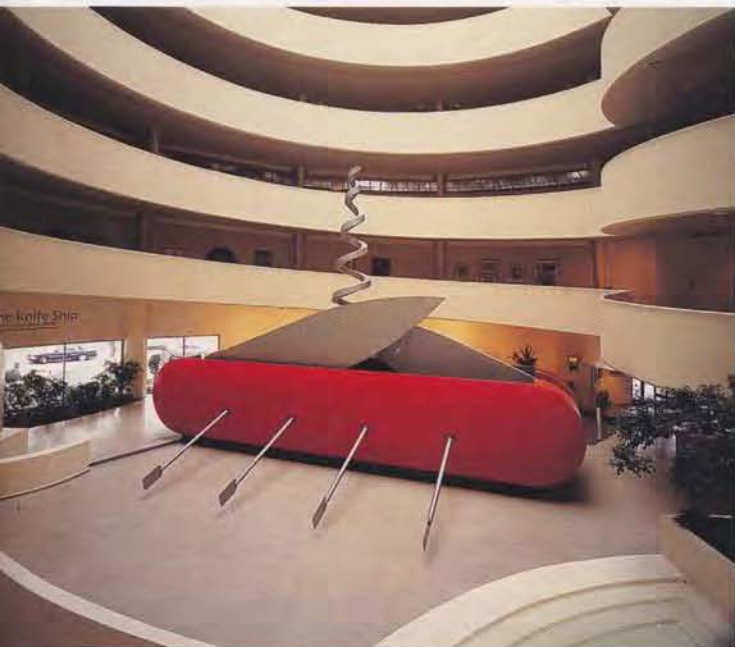
The scale of a work of art is an important element in our experience of it, an element that is lost in a book, where everything is reduced to more or less the same size. For this reason, it is important to experience as much art as possible at first hand, because its scale in relation to the viewer is part of the effect the artist had in mind.

The Belgian painter René Magritte used many pictorial strategies to suggest that the world around us might not be as rational and ordered as we like to think. One of his favorites was a shift in scale. In *Delusions of Grandeur II* (5.22), he invented a sort of telescoping woman, with each section rising out of the one before and continuing on a smaller scale. Transforming one element into another was also a favorite ploy, as when the sky, which looks perfectly normal at the horizon, is revealed farther up to be made of solid blue blocks.

Proportion refers to size relationships between parts of a whole, or between two or more items perceived as a unit. For example, the proportions of each section of the body in the painting by Magritte are naturalistic. The breasts in the top section are in the correct proportion to the size of the neck and arm openings; the navel in the middle section is in the correct proportion to the overall size of the belly.

5.21 (left) Claes Oldenburg and Coosje van Bruggen. *Knife/Ship II*. 1986. Wood, steel, aluminum, painted with polyurethane enamel; dimensions variable, maximum height 31'8" × 40'5" × 31'6". Museum of Contemporary Art, Los Angeles. Installed at the Solomon R. Guggenheim Museum, New York.

5.22 (right) René Magritte. *Delusions of Grandeur II*. 1948. Oil on canvas, 39 1/8" × 32 1/8". Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington, D.C.



5.23 (right) Stela of the sculptor Userwer, detail. Egypt, Dynasty 12, 1991–1783 B.C.E. The British Museum, London.

5.24 (below) A royal altar to the hand (*ikegobo*). Benin, 18th century. Brass, height 18". The British Museum, London.



Many artistic cultures have developed a fixed set of proportions for depicting a “correct” or “perfect” human form. Ancient Egyptian artists, for example, relied on a squared grid to govern the proportions of their figures (5.23). Unfinished fragments such as this give us a rare insight into their working methods, for in finished works the grid is no longer evident. Egyptian artists took the palm of the hand as the basic unit of measurement. Looking at the illustration, you can see that each palm (or back) of a hand occupies one square of the grid. A standing figure measures 18 units from the soles of the feet to the hairline, with the knee falling at horizontal 6, the elbow at horizontal 12, the nipple at 14, and so on. The shoulders of a standing male were 6 units wide; the waist about $2\frac{1}{2}$ units.

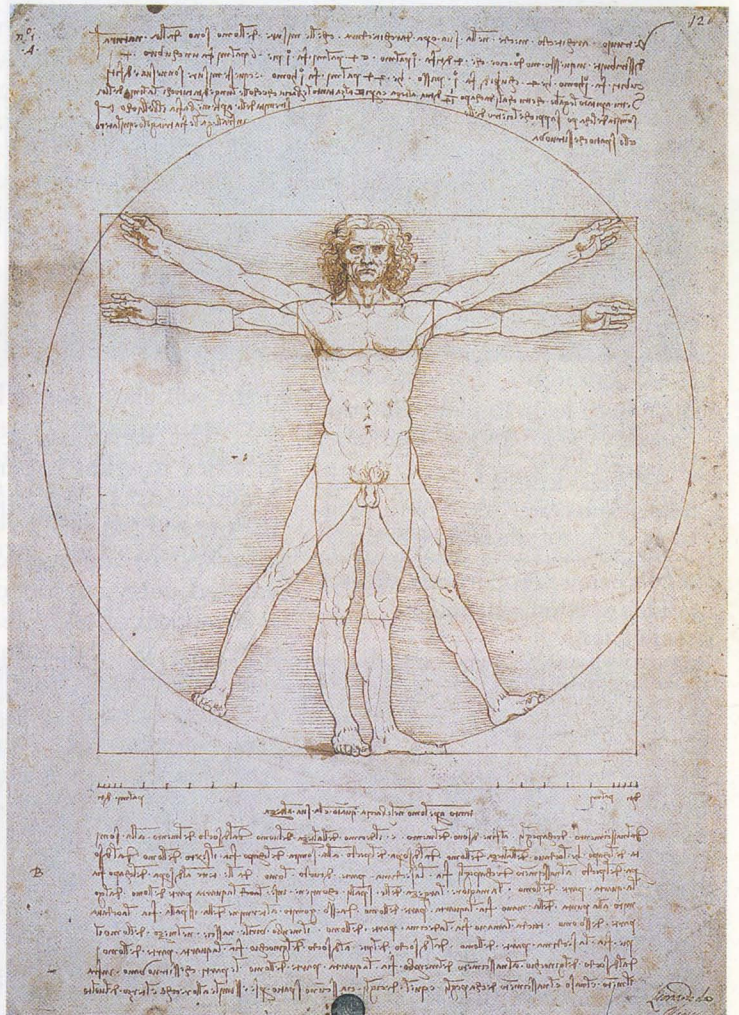
Artists have often varied human proportions for symbolic or aesthetic purposes, as in this royal altar from the African kingdom of Benin (5.24). Cast in brass, the altar is dedicated to the king’s hand, a symbol of physical prowess. Hands are depicted around its base, where they alternate with rams’ heads. The king is shown seated atop the altar, flanked by attendants in a symmetrical composition. As in the *Shaka Triad* earlier (see 5.9), the composition expresses a hierarchy, though this time a social one. As the most important person, the king is at the center. He is also portrayed on a larger scale than his attendants. The use of scale to indicate relative importance is called **hierarchical scale**, and it is evident in the *Shaka Triad* as well. Proportionally, the king’s head takes up a full third of his total height. “Great Head” is one of the terms used in praise of the king, who is felt to rule his subjects as the head, the seat of wisdom and judgment, rules the body. Representations of the king make these ideas manifest through proportion.

The painter El Greco, in contrast, elongated his figures and made their heads proportionally smaller (5.25). The twisting, sinuous contours and dramatic, flickering lighting create an effect so extreme and so original that for many generations it was assumed that the painter had some sort of eye trouble that caused him actually to see people this way. In fact, El Greco’s treatment of the figure was influenced by contemporary theories that praised a candle flame as ideally beautiful because of its elongated, twisting contours. Here, the spiritual energy released by Christ’s triumph over death is imagined as a sort of explosion, and the flamelike figures seem to burn with the intensity of the moment.

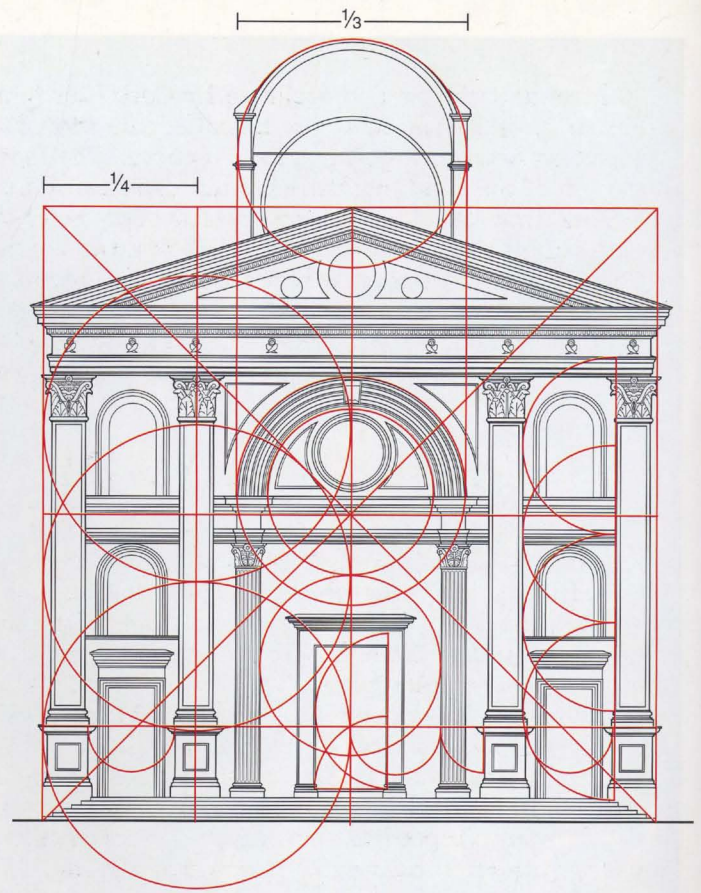


5.25 (left) El Greco. *Resurrection*.
c. 1600–05. Oil on canvas, 9'1/4" × 4'2".
Museo del Prado, Madrid.

5.26 (below) Leonardo da Vinci. *Study of Human Proportions according to Vitruvius*. c. 1485–90. Pen and ink, 13 1/2 × 9 3/4".
Gallerie dell'Accademia, Venice.



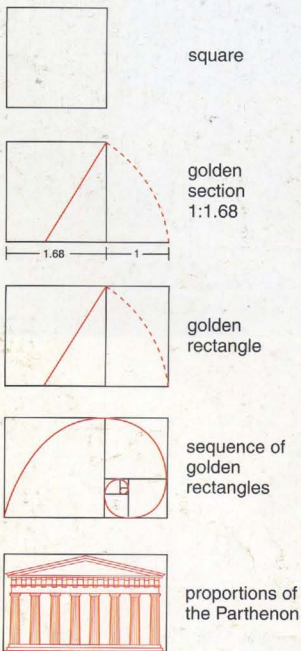
Among the many ideas from ancient Greece and Rome that were revived during the Renaissance was the notion that numerical relationships held the key to beauty, and that perfect human proportions reflected a divine order. Leonardo da Vinci was only one of many artists to become fascinated with the ideas of Vitruvius, a Roman architect of the first century B.C.E. whose treatise on architecture, widely read during the Renaissance, related the perfected male form to the perfect geometry of the square and the circle (5.26). Leonardo's figure stands inside a square defined by his height and the span of his arms, and a circle centered at his navel.



5.27 (left) Leon Battista Alberti. Facade of Sant'Andrea, Mantua. Designed 1470.

5.28 (right) Analysis of the proportions of the facade of Sant'Andrea.

5.29 (below) Proportions of the golden section and golden rectangle.



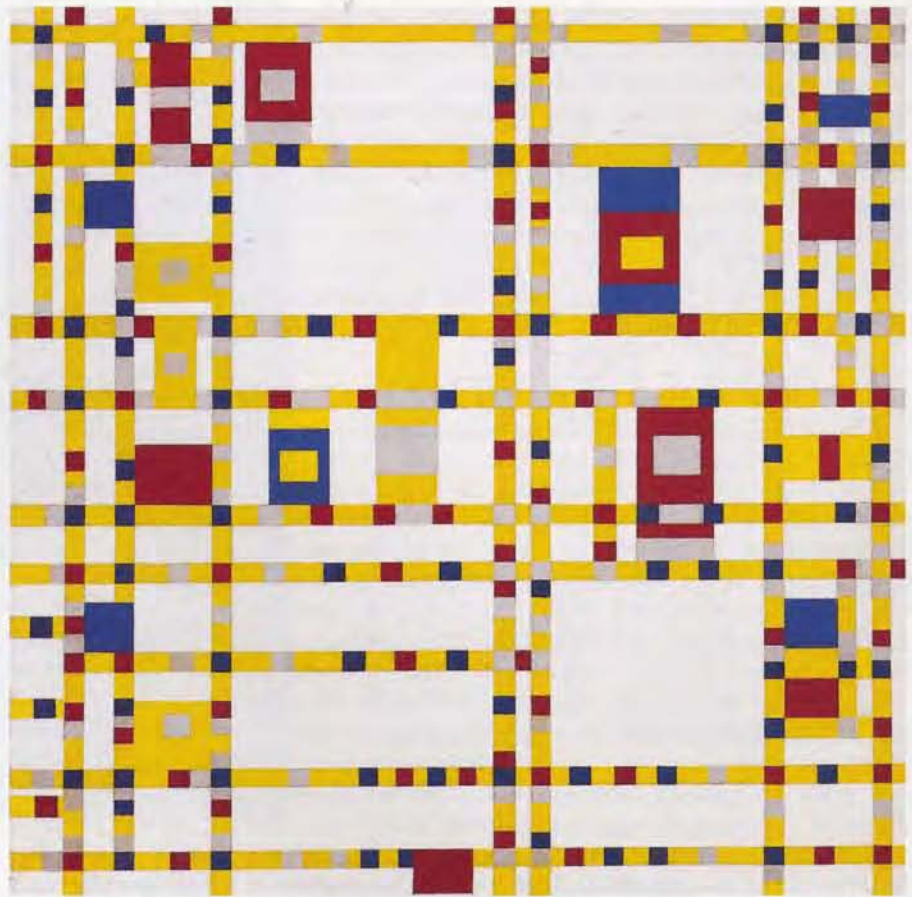
The Renaissance architect Leon Battista Alberti put these ideas into practice in what is perhaps his greatest work, the church of Sant'Andrea, in Mantua (5.27). An analysis of the proportions (5.28) reveals that the facade is constructed within a square. The tall pilasters (flat, ornamental columns attached to the surface) are set at one-quarter intervals. The width of the vaulted entryway divides the facade into thirds. The arch over the entryway is a section of a circle that radiates from the exact center of the square. The entryway is as deep as it is wide; that is, its floor area is a square. Alberti uses the dimensions of the entryway square as a basic unit of measure for the interior (see 16.4), so that the facade becomes like a musical overture in which the principal themes to come are announced.

A proportion that has fascinated many artists and architects since its discovery by the ancient Greeks is the ratio known as the golden section. A golden section divides a length into two unequal segments in such a way that the smaller segment has the same ratio to the larger segment as the larger segment has to the whole. The ratio of the two segments works out to 1 to 1.68. The golden section is more easily constructed than it is explained; Figure 5.29 takes you through the steps.

A rectangle constructed using the proportions of the golden section is called a golden rectangle. One of the most interesting characteristics of the golden rectangle, as Figure 5.29 shows, is that when a square is cut off from one end, the remaining shape is also a golden rectangle—a sequence that can be repeated endlessly and relates to such natural phenomena as the spiraling outward growth of a shell. For the Greeks, the intellectual and mathematical interest of the golden rectangle made it beautiful as well, an expression of the mathematical ordering of the universe, and they used it in the design of such structures as the Parthenon (see 14.24), an important and influential building that we will examine later in this book.

Artists and architects have often turned to the golden section when they sought a rational yet subtle organizing principle for their work. During the

5.32 Piet Mondrian. *Broadway Boogie-Woogie*. 1942–43. Oil on canvas, 50 × 50". The Museum of Modern Art, New York.



The rhythms of Piet Mondrian's *Broadway Boogie-Woogie* (5.32) are sharp and staccato. Mondrian came to New York from Europe in 1940, toward the end of his life. In Europe, he had largely cultivated an art of tranquility and balance, creating perfectly calibrated compositions based on what he felt to be the basic, universal language of human culture: rectangular forms, horizontal and vertical lines, and primary colors (see 21.29). In New York, the sixty-eight-year-old painter found a rhythm of life that was faster, more energetic, jazzier than he had known. He modified his visual language to capture those rhythms in *Broadway Boogie-Woogie*. We can almost *hear* the painting—the quiet percussion of the little squares and the sudden syncopated shouts of the larger rectangles, like car horns blaring in the busy streets, or like the joyful noise of a boogie-woogie.

The Cuban painter Wifredo Lam used overlapping rhythms to organize *The Jungle* (5.33). Vertical rhythms of bamboo and elongated legs predominate, enlivened by cross-rhythms of feet and hands (drawn in much the same way), and of crescent-moon-shaped faces. Human and animal forms mingle in this fascinating work, which contains references to *Santería*, a Caribbean religion that mingles West African and Roman Catholic beliefs. The horse/woman at the far left, for example, refers to the moment in *Santería* ritual practice when a devotee becomes possessed by one of the spirits, called *orisha*. Such believers are said to be mounted by the *orisha*, and hence the image of a horse.

Photographers, too, may use rhythm as an organizational and expressive element in a composition. The difference, of course, is that while painters, sculptors, and architects can create rhythms, photographers must find them. Soviet photographer Georgij Petruscow captured the open, circular rhythms of seated farmworkers to create a picture of communal harmony and collective well-being (5.34). Petruscow had been sent into the countryside by his government to document the success of the latest agricultural policies. His



photograph emphasizes not the actual labor of growing food, but its rewards. Petruscow has framed his picture so that only part of each seated group is shown, thus creating a winding path for us to follow into the image and leading our eyes toward the stacks of harvested grain in the distance.

5.33 (left) Wifredo Lam. *The Jungle*, 1943. Gouache on paper mounted on canvas, 7'10¹/₄" × 7'6¹/₂".
The Museum of Modern Art, New York.

ELEMENTS AND PRINCIPLES: A SUMMARY

5.34 (right) Georgij Petruscow. *Midday Break in the Fields*, 1934. Photograph, 15¹/₄" × 10⁷/₈".
Museum Ludwig, Cologne.

In the second chapter of this book we examined two paintings by Edvard Munch in order to explore how form could suggest meaning (see 2.24, 2.25). This chapter and the preceding one have introduced the vocabulary of formal analysis, the terms that help us see and describe what we see. In the process, we have examined many artworks, each from a particular formal point of view—as an example of line, value, balance, rhythm, and so on. Before leaving this section, we should analyze one work more fully in order to show how these points of view combine into a more complete way of seeing, and to suggest again how form invites interpretation. The work we will look at is Picasso's *Girl Before a Mirror*.

Painted in 1932, *Girl Before a Mirror* was probably inspired by Marie-Thérèse Walter, Picasso's lover at the time. Iconographically, the motif of a woman looking in a mirror is connected with a subject in European art called the *vanitas*. Latin for "vanity," its themes are the passing of time, the certainty of death, and the futility of piling up earthly treasure. Often, the

face the woman sees in the mirror is a death's head. Picasso would have been thoroughly familiar with the *vanitas* tradition, for he was very well versed in art history. Living and working in Paris, Picasso would have known, too, that this particular type of mirror is called in French a *psyché*, after the Greek goddess Psyche. Viewed as the personification of the human soul, she was loved by Eros, the god of love, who forbade her to look on him. This is the background information that Picasso could have expected his viewers to know. Now, what do we see?

Oriented vertically, *Girl Before a Mirror* (5.35) is over 5 feet in height. The woman and her reflection occupy almost the entire canvas. Thus she is not miniaturized, as in the illustration here, but portrayed larger than life-size. The scale of the painting and of the woman represented within it makes a powerful impression when seen in person. We confront the work on an equal footing as a presence that rises up before us.

The design is based in symmetrical balance, with the woman on the left and her mirror image on the right. The left post of the mirror falls near the vertical axis, dividing the composition in two. As in Frida Kahlo's double self-portrait (see 5.11), the fundamental symmetry draws our attention to the ways in which the two sides are *not* alike, for it sets them in opposition. Indeed, the reflection of the girl's face in the mirror does not double her exactly. Warm colors are reflected as cool colors, and firm shapes become fluid. This is not the death's head of a traditional *vanitas*, but it is a transformation nevertheless, and it evokes a mysterious, shadowy realm of uncertainty—perhaps the girl's thoughts, perhaps her unconscious, perhaps her soul, perhaps her mortality.

5.35 Pablo Picasso. *Girl Before a Mirror*. 1932. Oil on canvas, 5'4" × 4'3¼". The Museum of Modern Art, New York.



A composition divided so cleanly in two could easily break apart, and Picasso uses several means to tie the two halves together. The most important is the girl's gesture as she reaches out to the far edge of the mirror, almost in an embrace. The gesture links the girl and her reflection, and it is so important to the composition that Picasso reinforces it with a red-striped shape that begins on the girl's chest and extends to her fingertips. Together, gesture and shape set up a pendulum motion, and as we look at the painting, our eyes swing rhythmically back and forth from one side to the other.

Overall, the unity of the composition rests on the rhythmical curves and repeating circles of the girl and her reflection, culminating in the great oval of the mirror itself. A second unifying device is the lushly painted wallpaper, which extends across the entire canvas. Its diagonal geometric grid acts as a foil for the sweeping organic curves of the girl, and it is almost as important a presence in the painting as she is. Color unifies the composition as well, for while the colors are brilliantly varied, they fall generally in the same range of intensities and values, with the important exception of the girl herself.

And what of the girl? Picasso directs our attention first of all to her face, a natural focal point. He emphasizes it by painting one half bright yellow and by surrounding her head with an oval of white and green that isolates it from the busy pattern of the background and provides enough visual weight to balance the form of the mirror. He also modifies its proportions so that her facial features occupy the entire space of her head. With her yellow hair, circular half-yellow face, and white aura, she is like the sun of the painting, its source of light.

The pale violet portion of her face is depicted in profile, gazing at the mirror. With the addition of the yellow portion she turns her head to look at us—or at Picasso. Cool, pale colors set off by black shapes and lines draw our attention to her body, which is also divided vertically. The left portion is clothed in a striped garment, perhaps a bathing suit; the right portion is nude. The swell of the belly evokes childbearing and the renewal of life. In a remarkable X-ray view, Picasso even paints through her skin to the womb inside, envisioned as another circle. Her biological destiny is emphasized in the mirror image as well, for this part of her body is reflected confidently. Picasso draws our attention to it through an abrupt shift in value—in the dark world of the mirror, the breasts and belly are white.

What is the painting about? It does not have a single meaning, but many layers of meanings and associations. It is about a girl contemplating herself in a mirror, quiet before her own inner mysteries, aware of her life-affirming sexuality and procreative powers. It is about Picasso meditating on women as sensuous symbols of beauty, abundance, and fertility. It is also about Picasso looking with a lover's possessive gaze at Marie-Thérèse Walter, seeing through her clothing to the flesh underneath. Hovering behind the image are the tradition of the *vanitas* and its theme of mortality, and the story of Psyche, a girl who is aware of being loved and being gazed upon, and who turns fatefully to look at her lover.

Picasso did not have a checklist as he worked, dutifully adding the visual elements in the correct proportions of unity, variety, balance, scale, proportion, and rhythm. His student days were far behind him, and such thinking was by now second nature. But as the numerous reworkings evident in the finished painting show, he changed his mind often and made constant adjustments as he worked. Why? Any number of reasons, probably—because the balance was off, because his eye was not traveling freely over the canvas, because there was too much focus here and not enough there, because the mood of the colors was not right. The painting is the end result of all his decisions, a project he stopped at the moment when, as the picture's first viewer, he was content with what he saw. As later viewers, we articulate the elements and principles to make ourselves aware of the dynamic of seeing. With experience, this becomes second nature to us as well.